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ABSTRACT

In order to aid admissions personnel and teachers at Vermont College in enrolling, counseling, and motivating adult learners in machine shorthand courses, a set of checklists was developed to gather useful information about student goals, entry-level knowledge and skills, motivation, need for discipline, perseverance, and materials used. Checklists were administered to 18 students in day and continuing education classes at various times from course entry through the completion of the first semester. While early surveys emphasized gathering student characteristics and background data, later surveys addressed specific skills and the degree to which students had attained them or were experiencing difficulty with them. Recommendations were made for expanded use of the checklists, which include the establishment of a card index system to provide instructors and counselors with easy access to achievement information. Transferability of various skills, such as typing, is discussed, and the checklist forms and the text of a preparatory study are appended. (DR)

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A PLANNED LEARNING APPROACH FOR ADULTS TAKING COMPUTER-COMPATIBLE MACHINE SHORTHAND

by

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ABSTRACT

Name: Patricia Kennedy

Cluster: Vermont

Module: Learning Theory and Application

Practicum: A Planned Learning Approach for Adults Taking Computer-Compatible Machine Shorthand

A system was proposed employing a set of checkpoints and checklists to aid in the admission, counseling and success of the adult learner in developing the skill of machine shorthand in a college class setting. Checklists were prepared for administration to learners of machine shorthand, from entry level through the completion of the first semester of study. The thrust of these was based largely on learning theories applicable to adults and was to determine and evaluate goals, entry level knowledge in skills, motivation, perseverance, need for discipline, and media used. Findings include the need for evaluations to continue throughout the court and conference reporter training program at Vermont College and various times for checkpoints were suggested. Recommendations were made to establish a system of card index and cross referencing to individuals' file folders for information on each learner; to include in the checklist survey all learners in the course, not just the adult learners; to prepare for alteration in the checklists as the two years of the entire program progressed to encourage self-evaluation on the part of the learners as they prepare each checklist.

Results of this study provided data-gathering devices to aid instructors, the Secretarial Science Department, and the admissions personnel in enrolling, counseling, and motivating the adult learner in machine shorthand.

INTRODUCTION

There was a need for a planned learning approach for adults who enroll in a course in machine shorthand at Vermont College. A number of adults in the area indicated an interest in the course entitled Computer Compatible Machine Shorthand and in the program entitled Court and Conference Reporter Training. These adults joined a group of college-age matriculated students enrolled in the same course and in the same program. There was no learning unit or theories specifically for the adult learner and there existed a need to identify areas of ease and areas of difficulty peculiar to the adult learner so that appropriate planning could take place to aid these persons in their pursuit of the skill.

Correspondence with Judy Fox, Education Consultant for Stenograph® Corporation, led to the information that within that corporation, research had not been done in the area of adult learning. The Stenograph® system was the one used at Vermont College.

PURPOSE

The immediate purpose was to provide information that would be helpful in recruiting, admitting, and counseling the learner during the studies. Indications nationwide predicted an attrition rate as high as 90 percent, according to Professor Jean Macdonald of Vermont College. Re-entrance counseling, and counseling concurrent with study would help the individual ascertain goals, persist in

motivation, and establish a discipline of study among other benefits that would accrue. It seemed important, therefore, to develop a system by which a study of the enrollees could be made upon entry and to follow them during the course with the specific intent to accumulate data that would aid them in their study and of later enrollees.

METHOD

The method of investigation proposed was a series of checklists to be provided to the learner at various stages of enrollment/learning. Emphasis was to be placed on the first semester (Appendix A p. 30) for this research when the goals, motivation, and discipline of each learner were expected to be of prime importance to the learning of the skill.

The checklists were prepared with consideration of the course being taught to adults in Continuing Education, the preparation of the faculty to teach the course, and the learning theories that would be especially applicable to the adults in machine shorthand skill. A part of the investigation was the author's study of the course herself in a self-study situation. This latter factor was significant in completing the kind of circle of learning possibilities referred to by Keeton,[1] who emphasized teacher-directed, completely independent, and self-directed study.

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[1]Morris Keeton. Address at Nova Summer Institute, Hollywood, Florida. August 3, 1978.

BACKGROUND

During the readings and study of the Learning Theory module, the writer was attempting to learn the theory of machine shorthand so that she could teach the course. At the same time, a course in machine shorthand was being given on a continuing education basis at Vermont College taught by Professor Jean Macdonald. Like so many skills, it is not necessary that an instructor possess a high degree of skill, but she must have good knowledge of the theory and enough skill to be a good instructor of others.

As learning theories were studied, and as it became evident that many of them might be directly applicable to the adult's study of machine shorthand, the proposal for a learning approach for adults in machine shorthand took shape. The department and the College had need of such a study and of the materials that were finally proposed.

Some of the population in the community were indicating a desire to study machine shorthand; job placement of a court/conference reporter was excellent; adults were inquiring about the enrollment in machine shorthand; the College admissions' personnel and the department lacked definite admission criteria and counseling data. The gathering and collating of information related to adults' goals, motivation, and perseverance was necessary to provide data to the Secretarial Science Department and to the College.

SELF-STUDY

In the self-study, the writer soon learned that goals, time, motivation, and discipline were major factors in the success of learning this new skill. A project was done within the learning module itself relating the self-study to learning theories (Appendix A). In it a comparison was made of the initial attempt to learn the skill and theory and the continued efforts to complete the teacher-training course. The self-imposed discipline and self-paced learning was not successful. In the time from October, 1977, to June, 1978, a series of "starting again" took place and discouragement set in. The figure on page 33 of Appendix A shows the time span involved. The motivation which was spurred by enthusiasm became a motivation of having to learn to be prepared to teach.

LEARNING THEORIES

The study of machine shorthand lends itself to various learning theories. The author learned first hand that learning, relearning, use of past skill, retention, and transfer of learning were among theories involved. For example, retention was poor when there was a lapse of study and practice for more than two or three days. Adapting from the typewriting to machine shorthand keyboard was difficult.

Will the adult learner learn the skill in a much different manner from the student learner? Are the theories of andragogy far different in this skill of machine shorthand from those of pedagogy?

Malcolm Knowles writes of the life-long experience of the adult being beneficial to learning. He states that a core concept of andragogy is that the adult has a psychological need to be self-directing but may not be prepared to be self-directed for he has come through an educational system that is more nearly directed by teachers. However, the adult is usually more highly motivated that the student. He has probably learned how to learn as opposed to students who know only how to be taught. The adult is more likely to have initiative, to realize that responsibility is on him to learn; he tends to be goal oriented, and he looks for ease in entering a course.[2]

The mechanics involved would be the same for all learners (excepting one handicapped and needing special mechanics). The adult will learn more slowly, but he has the advantage of prior experience. How is the transfer of learning helpful to him? Is the learning relevant to the adult and to his existing concepts as Ausubel suggests?

The learning of the skill of machine shorthand is neither wholly teacher-directed nor wholly self-directed; therefore, a middle ground (overlapping) must take place. For the adult, the instructor must be more nearly a facilitator of learning than a teacher; some adults, though, will learn more readily if they are taught in a structured manner.

The classroom provides teacher direction and media;

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[2]Malcolm S. Knowles, "Importance of Continuing Education," Educational Leadership, 33 (November 1975), pp. 85-88.

materials and media are available for out-of-classroom self-study. The machine itself is provided for the learner and this becomes the moving force in the first days of study--the initial step having been the registration and attendance at the first class. Knowles indicates that we should find out what the adult wished to learn and why, and then we may vary the learning plan accordingly.

A starting point of the practicum appeared--adopt a series of checklists that would collect data about the adult who wished to study machine shorthand and why.

The goal of the learner is of great importance in the success of the individual. Mager and Pipe have used diagrams and flow charts throughout their book, Analyzing Performance Problems, to indicate how best to attain desired performance in skills.[3]

Identifying an adult's goal in machine shorthand requires consultation with the adult, presenting him with various options, and checking and evaluating his goal as he pursues his studies. Engaging him in diagnosing his own needs is very important. He must determine his goal in theory, in skill, and in job direction. His time perspective is one of more immediate application than that of the student according to Knowles.

Cyril Houle makes three divisions of reasons for enrolling in a course of study: the individual may be goal

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[3]Robert F. Mager, and Peter Pipe. Analyzing Performance Problems. (Belmont: Fearon Publishers, 1970).

oriented, activity oriented, or learning oriented.[4] The activity-oriented person is a joiner, possibly a retired person, who enrolls in a class for something to occupy his time. The learning-oriented person seeks knowledge for knowledge sake and probably has a habit of learning from early years. These two latter kinds of persons are not likely to pursue machine shorthand; the machine shorthand learner is probably goal oriented with the specific disire to use the skill for employment purposes. Houle suggests that it would be well for the instructor to determine into which category the teacher might fit.

The adult must be assured of his ability to learn, Houle says; he must know, when he becomes discouraged, that his ability is equal to or better than the student in the same class but that his learning may sometimes be at a slower pace. The adult has a reserve of learning to transfer. One may assume that experience and motivation will lend a facility to learning that is not possessed by students.

Adults should be encouraged to help one another within the learning; opportunities should be provided for them to relate to their peers and to students. A greater assurance of their ability will result just by sharing difficulties and successes.

The need for reinforcement and feedback seemed essential to this skill as well as in the teaching of typewriting

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[4]Cyril O. Houle, The Inquiring Mind. (Madison: University of Wisconsin Press, 1961). pp. 35-41.

and shorthand. Skinner emphasizes the need for practicing correct responses; having knowledge of results with reinforcement. These needs match closely with Thorndike's exercise and effect theory.[5]

McKeachie and Doyle in 1966 challenged the reinforcement idea and questioned the concept of reinforcement. McKeachie does suggest the value of feedback and suggests in his article The Decline and Fall of the Law of Learning that the feedback value would depend on the information it provided.[6] Thorndike believes that the knowledge of results brings improved performance when the learner is motivated and when the knowledge of results is informative.

Judy Fox of the Stenograph® Corporation said that in courses given at Southern Illinois University, perseverance and motivation continue to be major factors in success or failure of adults' development of skill in machine shorthand. Professor Fox also said that courses offered during daytime hold greater success for students than those at night. The major factor in success is the continuity of classes; therefore, the five daily classes result in greater success than meetings held perhaps two evenings a week. This continuity then raised the question of loss of skill during school vacation periods--particularly the summer between the first and second year of study. Fox indicated that the

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[5]G. Snelbecker, Learning Theory, Instructional Theory, and Psychoeducational Design. (McGraw-Hill, New York, 1974).

[6]W. J. McKeachie, "The Decline and Fall of the Laws of Learning." American Psychologist. (March 1974). pp. 7-10.

summer vacation is indeed a major problem. She fills this gap by providing tapes to students for continued summer study; in addition, she makes evaluation tapes of her own to simulate students' efforts and to check on their summertime work.[7]

Glaser relates objectives to previous achievement, motivation, and entering behavior. Consideration had to be given to the background learning and skills of the adult. While one might accurately assume the adult has little or no knowledge of machine shorthand, one should also assume that experience and motivation will lend a facility to learning not possessed by students. How, for example, would the lack of the skill of typewriting affect his learning machine shorthand? Would knowledge of script shorthand be helpful? Could typewriting and script shorthand be taken concurrently with machine shorthand? And in what measure is the skill of machine shorthand affected differently from the theory?

Could one determine what differences within an age level are greater than differences between age levels in terms of learning efficiently as suggested by Ripple?

Because of the necessity of daily practice for the development of machine shorthand skill, variables had to be included such as outside forces (home environment), facilities in the classroom, and the media available for individual learning.

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[7]Telephone conversation with Judy Fox, Educational Consultant Stenograph® Corporation. Skokie, Illinios: September 1, 1978.

Ausubel's theory of advance organizers anchors ideas for future ideas; he believes rote learning is not necessary. In machine shorthand more than rote learning is required, though there is a consideration of it; motor skills are extremely important and may be a deciding factor especially between the court and the conference reporting.

Having developed a scheme of reference among such theories as goals, self-direction (Knowles); reinforcement (Skinner); entry behavior (Glaser); reaction to media; assurance of ability to learn (Houle); and objects of learning (Brunner); then the procedures were begun.

PROCEDURES

Checkpoints for evaluation were decided upon for the machine shorthand course; checklists were prepared for the first semester.

The necessity for definitions of terms became apparent as the study developed. Words applicable to learning theory and to the individuals involved in a Stenograph® course needed specific meanings. The following list of words and definitions was prepared:

Adult: person who is enrolled full or part-time in college course; may or may not be matriculated for a degree; has been away from formal studies for work or other reasons for one or any number of years; age tends to be 25 and above.

Andragogy: learning which pertains to an adult.

Course: in its broad term, it will mean four semesters; in a narrow meaning, it may be used to mean one to four semesters. Specific time will be indicated as is necessary.

Goal: the objective which the person has chosen for himself or a terminal point in the studies which is built into the program (meeting certain standards). This may pertain to personal use goal and/or goal leading to employment ability.

Learner: person enrolled in a course.

Learning Unit: a block of study usually meaning one semester: in some instances, it may be used to refer to a course. Specific time will be used in explaining the term as circumstances require.

Pedagogy: learning which pertains to student.

Skill: the ability to use the Stenograph® machine at the level of competency required for the various goals.

Stenograph®: the computer-compatible machine shorthand system taught at Vermont College of Norwich University. This term refers both to the course and to the Stenograph® Corporation.

Student: person who is enrolled in a school in an uninterrupted sequence of years toward his particular goal; usually matriculated for a degree; age tends to be 18-22.

Theory: the knowledge of the computer-compatible machine shorthand alphabetic system of sounds and letters employed in the note-recording process.

The process of preparing evaluation checklists combined the literature review, experience of self-study on the author's part, input from the adult continuing education class and its instructor, information from Stenograph® Corporation and its consultant, to attempt to pinpoint the areas of concern which would be most relevant to the learner.

The questionnaire proposed for pre-entry level was dismissed after it was found that (1) necessary information was avialable through written and oral application procedures; (2) background information could be obtained in checklist Number ONE (Appendix B). The study of only adults was changed to include all class participants. Although the study leaned heavily on adult learning theories, the checklists seemed valuable enough to warrant including every learner, and the files were proposed to hold data about both student and adult learners.

A separate module for an adult was not necessary as proposed. The media provided by the Stenograph® Corporation filled the need. As a result of the procedures adopted in this practicum, the adult could be individually counselled to use the media to her own best advantage.

A card catalog was introduced (Appendix C), for basic information on entry/exit levels; files were opened for each learner; a cross index procedure provided the ability to retrieve detailed information from each person's individual folder.

The checkpoints established were:

1. Continuing Education Class, Spring 1978.
2. Initial class meeting of first semester of machine shorthand in regular daytime schedule offerings.
3. Class meeting mid-point of the first semester prior to grades being issued to learners.
4. Conclusion of first semester.
5. Conclusion of first year.
6. Conslusion of course (upon completion of degree or drop-out during the two-year period, or completion of one year as usable skill for employment in limited areas).
7. Follow-up of those using machine shorthand in employment positions.

POPULATION

The continuing education class of Spring 1978 was a group of 4 adults and 1 student; this same group continued study in the summer of 1978 with Professor Jean Macdonald, the instructor. In the fall of 1978, the 4 adults continued the nighttime class with Professor Macdonald; the student enrolled in the daytime class to pursue the full two-year degree program. The daytime class in September 1978 had a total population of 18 divided as follows:

Full-time degree matriculant	8
Special part-time students	2
Part-time adults	6
Full-time certificates	2

Among these 18 — 10 enrolled for credit for degree

7 for credit, but not matriculated for a degree

1 audit

17 Commuters	7 Adults
1 Residents	11 Students

Once the checkpoints were set, the checklists were prepared. These were focal points of the study and were devised to provide the data necessary for the categories for which this study was devised.

The following table shows the checkpoints, the timetable, and gives the checklist references:

	CHECKPOINT	TIME FOR SURVEY	CHECKLIST
1.	Continuing Education (night class)	May 1978	Appendix A
2.	Day Class	September 6, 1978	I. Appendix B
3.	End 1st Quarter	October 17, 1978	II. Appendix D
4.	End 1st Semester	December 6, 1978	III. Appendix D
5.	End 1st Year	May 1978	*
6.	Conclusion of Course	June 1979 (or earlier exit)	*
7.	Follow-up Study	After June 1979	*

HYPOTHESES

It was hypothesized from the learning theories studied and applied, from experience of those who had taken the course, from self-experience and from the experience of Professor Macdonald that (1) both adults and students would

* This study recommends that the remaining checklists should be done after results are collated from steps 1, 2, 3, and 4.

need special counseling; (2) adults, more than students, would have difficulty with the time-discipline required and less difficulty with motivation; (3) the learning of the skill would be easier if the learner had a background of typewriting.

The assumption was that typewriting was a needed skill prior to learning the skill of machine shorthand; that a great barrier to learning machine shorthand would be to enroll in a beginning typewriting class simultaneously with machine shorthand; that knowledge of other shorthand systems would be helpful. No assumption was made regarding the taking of handwritten shorthand simultaneously with machine shorthand.

It was projected that checklists and collating of data on a continual basis would provide much of the needed information to counsel enrollees. It was further projected that the adult would not find immediate satisfaction as she anticipated within the first semester as she might have expected.

The procedures used indicated that they were appropriate to achieve the objectives; refinement would have to be made as semesters passed to allow for inclusion of added questions and exclusion of non-meaningful ones as checklists were completed and collated. This would take until at least June 1980 when the first full-time students would receive degrees in Court and Conference Reporting. At that time, 1980, the department would be in an excellent position to provide information for the following areas:

I. Secretarial Science Department
II. Admissions
III. Continuing Education
IV. Instructors
V. Prospective learners--especially adults
VI. Accreditation of the Court and Conference Reporter Program.

The learners affected by the study will be all those enrolled in the Computer Compatible-Machine Shorthand course.

RESULTS

During the first three weeks of study, in September 1978, the interest and satisfaction were at a high level. At the time of the initial evaluation on September 20, Professor Macdonald indicated the first major plateau had been reached and many were showing signs of concern/discouragement. Within two days, the interest was renewed. The evaluation plateaus would continue; after enough of them had been experienced the learners should cope more easily with this specific cause of concern.

The suggestion that outside influences (home conditions for study, full-time or part-time work) would affect perseverance will only be substantiated after a full year of checkpoints have been encountered. Motivation, too, may be seen changing as the yar progresses and will be especially indicated at the end of each semester as the learner makes thc decision to continue. These will be times when important information will be available for studies about who continues, whether her original goal changes, and whether she evaluates her own skill development and progress correctly or needs particular counseling from the instructor.

All but one person involved in this study had some typewriting skill before enrolling in machine shorthand; one student enrolled in a hand-written shorthand course simultaneously with the machine shorthand course (see Table 1 p.18).

In recapitulating information from initial questionnaires the following information was determined to the significant.

Table 1

	Yes	No
Prior instruction in machine shorthand	---	16*
Prior instruction in typewriting	15	1
Prior instruction in shorthand	11	5

*Only 16 of 18 answered these questions.

The hypothesis that typewriting is essential was generally correct. It is true that a person may study machine shorthand before learning to type--or without ever learning to type--(such a person could have another person transcribe the notes on the typewriter or might have a tie-in to a computer which would automatically transcribe notes). In that sense, typewriting is not an essential skill to have prior to learning computer-compatible machine shorthand. Professor Judy Fox indicated to the author on September 1, 1978, that some knowledge of typewriting is usually required; speed of typewriting is not a particular prerequisite. She stated that there have been those persons who have had no knowledge of typewriting who learned the machine shorthand; in such cases, her experience was that such success was with great difficulty and was not the usual case. At the present time most employment requires the stenographer be skilled in transcribing the notes. It is in the transcribing and in the preparing of added copies that the reporter can earn the greatest amount of income.

Special note must be made of one adult (part-time student) who began the machine shorthand course and had no formal typewriting training. This student was also the person who entered the course late (see Table 2 p.21). He was the outstanding student in the course insofar as speed and passing the tests for progression that were given. Professor Macdonald indicated that the success of the student is directly in proportion to the long hours of practice which he devoted.

Checklists administered through mid-October, began feeding the information especially related to motivation, and planning of one's study time. Results showed that further checklists will substantiate the diffuculty one has disciplining herself to practice as well as the part out-of-class environment plays in eventual success.

The grading period in late October had some effect on motivation and long-range planning of each learner; therefore, the author decided to administer the second checklist prior to the grading period. Students do not generally drop a course after the mid-semester period and Professor Macdonald agreed that the pre-grading days would give more nearly valid information for department purposes.

Significant factors which came to light included those which spoke of the necessity of perseverance and long dedicated hours of practice. Those who dropped the course after one semester did so because they were not willing to give the time required for classes and for practice to enable them to reach the required proficiency and various levels in the semesters.

The population change indicated that approximately 59 percent of the beginning class dropped out by January 1979. Of 11 students, 8 remained; of 7 adults*, 3 remained. The one resident student who began, remained. These results were not significant enough to allow a prediction on survival based on residents versus commuters.

The members of the continuing education class were in their third semester of study. These were all adult learners, employed, and had a greater sense of motivation and determination. There was a greater sense of immediacy of use of the skill among these, giving credence to the theory that such immediacy is more evident among adults.

Results bore out Knowles self-directing need and high motivation and Cyril Houle's goal oriented motivation. Adults indicated ease with which they adapted to the class and the excellent good rapport that existed for them with students.

Daytime classes and nighttime classes did not show the difference suggested by Professor Fox (see p. 8); rather, it was the part time versus full time population that seemed to indicate greater success. One of the factors to be watched in the future is this part-time implication; one might hypothesize that a person taking a full range of courses in a degree program does not have the amount of time to devote to machine shorthand that a part-time person would have.

* One adult dropped in October; one entered in October.

Table 2 shows the findings which are thus far considered accurate and of note.

TABLE 2

October 1978

Easy	Very Difficult
1. Reading Notes	1. How machine operates
2. Speed Building	2. Inserting paper
3. Phrasing	3. Lab adaptability

January 1979

Easy	Very Difficult
1. How machine operates	1. Reading Notes
2. Inserting paper	2. Speed Building
3. Lab adaptability	3. Phrasing

These results showed a reversal in the ease and difficulty of the procedures in the course. Early in the course difficulty was primarily with the machine and its operation and use of media for practice; the theory and speed building were termed easy in the October survey.

Many of the questions on the checklists, while producing interesting data, did not provide data which seemed directly applicable to counseling entrants. Positive decisions on changing the contents of the checklists will not be done until one complete year has passed.

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

The purpose of the study was to provide valuable counseling and instructional data through checklists; the first major results came in January, 1979, when attrition was figured; the data from checklists can be used to study the attrition. The second set of results will be available in May, 1979, when attrition is again determined and when there is evidence of learners changing their goals.

A major finding will come in September, 1979, or shortly thereafter. The summer vacation of May-September, 1979, will indicate those truly motivated, those who continued work on their machine shorthand on a self-study basis, and those who have appreciably lost skill to the point that the learner and/or the instructor considers continuation unadvisable.

The findings which are available thus far are:

1. checklists prepared for various stages and already used, are valuable to the department.
2. files established in the department for these particular students concerning only the machine shorthand information are already of aid to the department in counseling.
3. the planned program of gathering data is satisfactory to provide needed information for accreditation of the program.
4. consultation with Judy Fox has established a satellite area to aid and (perhaps be aided) in this study.
5. input is necessary from current instructor: Professor Macdonald.
6. cooperation of the department head, instructor, and the learner is essential; in this study such cooperation was excellent.

7. the opportunity to compile data as the initial class was begun brought a fresh approach.

8. the special consideration of the adult was the prime thrust of the study; a side effect which was extremely valuable, was inclusion of all learners.

9. the course offered in night class is of sufficiently different motivation to require different checklists in the future.

The basis, then, of the entire study--accumulating data to determine goals, motivation, success and influences on the learners--is the checklists. They are included, in order of suggested use, in the appendices--labled Appendix A (p. 30), Appendix B (p. 43), and Appendix D (p. 46).

It was in the analysis of the data from checkpoint 2 that the decision was made to expand the file system and to include card files and cross indexing (Appendix B).

One of the features in questioning the learners in checklists was that the learner should have the original checklist to compare as she did each consecutive checklist. This not only enabled the researcher to compile the data, which was the prime reason for the checklist, but also provided the learner with a learning experience and self-evaluation. This comparative feature will not be proven effective for several semesters; a portion of the last checklist in semester 4 should incorporate questions relating to the helpfulness of this factor.

In the day class there was no indication whether it was better to have the learner complete the checklist in the classroom or to take it from the room and return it the

following day. The instructor was willing to use the necessary class time, and both systems were tried. There was no problem in obtaining the form from the learner. In the original attempt (Appendix A p. 30) in May 1978, the forms were taken from the room and nearly a month passed before they were all returned--forgetfullness and not unwillingness being the key. One form was never returned, and that belonged to the one student who enrolled in September 1978 for the full-time degree program.

Enthusiasm is greater than traditional systems of hand-written shorthand. Given the same period of time--approximately 20 months--the speeds attained can be higher than in handwritten shorthand. However, consideration must be given to the fact that these persons have intensified their study and applied themselves to a different kind of work and to special goals from those of traditional shorthand. No conclusion is stated here that success is or is not greater in court reporting due to machine shorthand. This would be the basis for a different kind of study, which is not significant interest to this practicum.

The population of the day course already in progress was a mixture of students and adult learners. Since the purpose of this study was to aid the adult learner and the counseling and teaching of the adult, the research and review of literature was devoted to consideration of adult learning as it would apply to the skill subject of machine shorthand. As already indicated in the background, learning theories do

include the relevancy of influence of one's companions in study; though it is especially from one's peers, one may note that adults and students have much to share with one another. This, along with the idea that the data would be valuable, caused the checklist system to include everyone enrolled.

The learning of the theory and the developing of skill are as distinct as they are interdependent. The goal may be, at its ultimate, that of court reporter; at its entrance level, the learning of theory. Between these two goals are motivation, discipline, direction, counseling, teaching, and the numerous other factors that affect each adult in that person's learning capability.

Implications are that the educational process will be improved as a result of providing this research and providing for the collection of data.

With the checklists which were provided and the data which was and will be collated, what was proposed will be fulfilled:

1. a better approach to the learning of machine shorthand for adults (and other learners);
2. availability of data to aid in any restructuring of the course;
3. advise and counsel to learners will be of better quality.

Recommendations which should be considered short range area:

1. Prepare checklist for
   a. May 1978
   b. conclusion of course June 1979 or earlier exit
   c. follow-up after June 1979

2. Use data collected in semester September-December 1978 as basis for counseling next beginning class.

3. Provide research data to Stenograph® Corporation for possible use and feedback.

4. Include in the first checklist questions that will provide this information particularly about adults:

   a. how did enrollee learn the course was being offered at Vermont College?
   b. after inquiring about the course, was information quickly, easily, and completely given?
   c. was the registration procedure easy? If not, what difficulties did the enrollee encounter?
   d. what were your major concerns before attending this first class meeting?

Recommendations for long-range application of the use of this data and the data which will be compiled in the future as a result of this study are for:

1. recruiting of student by Admissions personnel

2. counseling of adult and student learners

3. scheduling of class time, both day and night

4. restructuring of checklists

5. accrediting of the program

6. comparing the success of the program with those in other schools i.e. Southern Illinois University

7. studying adult and student differences--those existing between the groups as well as among various categories i.e. residents, commuters, part-time, full-time, night classes and day classes

8. giving a seminar-type opportunity in May 1979 and in succeeding years for the students and adults to discuss and evaluate the checklists.

9. outlining for the enrollees employable goals which will be available at speeds less than those required in Conference Reporting.

As the program expands in time and number of learners, more instructors will be needed; the information collected will provide a consistent basis for instructing and counseling all learners. Through the entire work of this practicum it became increasingly evident that data from all learners was valuable since there were bases of common answers in the checklists administered to date. This gave credibility to the suggestion to the department chairman that files should be kept for all learners. The recommendations were enthusiastically accepted by Professor Macdonald and the practicum work has already aided in establishing criteria for admission and counseling.

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APPENDIX A

THE APPLICATION OF LEARNING THEORIES TO THE INITIAL ENCOUNTER OF THE STUDY OF COMPUTER-COMPATIBLE MACHINE SHORTHAND

LEARNING THEORY

Dr. Richard Ripple

by

Patricia Kennedy MAT

Vermont College of Norwich University

DR. CORNELIUS ROBBINS

VERMONT CLUSTER

NOVA UNIVERSITY

June 10, 1978

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Introduction

The original motivation to learn something new was approaching a matter of necessity. In October 1977 it became apparent that a course in machine shorthand (see Appendix A) would be a desirable offering within our department. While one other person in the department has the ability to teach the course, I was urged to begin a self-paced teacher's instructional course. My enthusiasm was immediate and short-lived. A simple diagram later in this paper will indicate more nearly the vascillation that occurred. At this stage, May 1978, which resembles a re-entry of beginning level, there are a variety of learning theories that seem applicable to the initial study of computer-compatible machine shorthand. I shall attempt to make such application.

Hypothesis: that a variety of theories of learning are applicable to the learning of computer-compatible machine shorthand on both the junior college and post-college age level (18-21 and 21-older); that motivation plays a major role in the success of the learning.

Identification of Steps on Study

1. to complete the first unit of work in the teacher-training course of machine shorthand with its final evaluation.
2. to compare the initial attempt at learning with the current one insofar as personal learning, reactions, and motivation are concerned.
3. to survey a limited number of students and compare some aspects of their learning to my own.
4. to apply various learning theories and identify problem areas met.

Initial Endeavors

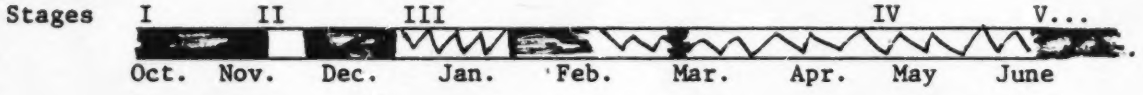
The immediate objective was to do something new and report on it; the long-range objective was the ability to teach the course (with objectives and

evaluations allowed for an included). There is a specific design for instruction, and I was guided by a purpose both immediate and far-reaching which would result in a behavior change. There was the factor of difference in my studies from that of a student (as would be true in the study-for-teaching of other skills:--it is not necessary that I master this skill to an employment level. Therefore, the approach taken is one of self-imposed discipline and self-paced learning through special texts, tapes, and evaluation projects. The emphasis for students is one of learning the skill for employability as either a court reporter or conference reporter, the former demanding a higher degree of speed than the latter.

The introduction to the course was one of preparing the machine and the necessary tape recorder, having texts ready, and preparing mentally for a time of complete concentration. This last item becomes more important as lessons continue.

Initial Training Versus Re-entering

In re-entering the project in May 1978, I was reminded of my original endeavors; Figure 1 indicates the time span which is relative to my learning experiences:



Code: black: total time
blue: study time
red: non-study time

Figure 1

In October 1977, my enthusiasm for this new knowledge was at its highest. With all materials at hand and the appropriate time and surroundings available, I began. At least two hours later, there began the feeling of frustration; I

had trouble setting up the machine, getting the paper to feed, and following directions. Suddenly I was faced with blank keys to strike and the realization that letters of the alphabet are not struck with the same fingers as are used on a typewriter. Must I relearn? No, not completely; I must learn something new and adapt. Will any of my skills from typewriting aid me? Yes, eventually I find this is so. But my first encounter was surely a humbling experience.

The diagram indicates that Stage I lasted about two weeks. This was a period of continued interest, gradual familiarity with the machine, and a constant rustle of paper and books to go from page to page developing the manual skills and studying the theory of teaching at one time. Stage II brought that usual break in the academic world of Thanksgiving, exam period, and holiday recess (no motivation here!). Stage III - I had not forgotten the machine existed as I carried the portable unit on vacation; carrying it, I learned, is not one of the learning theories. Stage IV brings me to the present, and I project Stage V not quite into infinity but at least into the far parts of that inevitable day when my chairman indicates it would be most advantageous if I had learned the theory before teaching a beginning course rather than learn it simultaneously.

Application of Learning Theories

Retention. Approximately two weeks intervened between a beginning in October and re-beginning in November. I learned I had to repeat from the beginning; I could not take up where I had left off. Some of what I had learned came back quickly. Between November and May there was good retention of the physical preparations necessary but even greater loss of skills originally developed.

Negative transfer. Having letters of the alphabet in different finger locations from typewriting created new learning and adapting. The same held

true for some shorthand skills in what is referred to as brief forms. There was carry-over knowledge that was helpful; only further research would extrapolate the specific areas.

Proactive learning. Prior learning on new learning was evidenced; it was a case of differentiating between typing/shorthand and machine shorthand and considering learning from Stage I to Stage V.

Reorganization. I did not find that there were areas different from what I remembered between Stage IV and Stage I.

Meaningful material. That such material is remembered longer proved true in my remembering the physical set-up of the machine and its mechanics.

Distributed practice and review is essential. Further study would include a good deal of research into how often classes meet, for how long a period, and when and for how long one should practice. There is the possibility that the usual summer break in a college situation would affect retention more in machine shorthand than is presently true in typewriting/shorthand. The system does provide for sequential, cumulative learning. Knowledge of results does improve performance (McKeachie); the feedback is immediate both in the teacher-training kit and the student book, with answers readily available; an added feedback is the incentive for the progress of each for himself and within a group.

Transfer. Identical elements are apparent now, but as stated in Snelbecker, Chapter 11, the importance of information processing in the future is something to which we must be especially attentive. The recent model of Stenograph and the teaching are referred to as "Computer-Compatible" and allow for rapid advancement in technology. We should question and prepare for--How fast? and How advanced?

In considering Thorndike's belief that transfer occurs because of similar elements, I suggest exploration of the following:

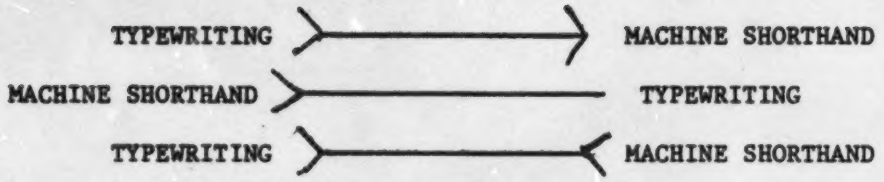


Figure 2

1. that a knowledge of typewriting before taking machine shorthand is both good and necessary

2. that learning machine shorthand with no knowledge of typewriting is possible, but one could not type his transcripts himself (thus limiting his employment as well as an otherwise lucrative business) and would prevent self-employment.

3. that learning both skills at the same time would be something to surely boggle the mind and motor skills.

I do not have research done in these areas, and the conjectures are my own and purely conjectures; but both personal experience and application of various learning theories gives me cause to believe my assumptions.

Reinforcement. There is need for purposeful reinforcement. From my experience, purposeful means motivation and feedback. Reinforcement requires quiet, extensive periods of time (about 2-hour blocks), and conductive surroundings. All three of these factors are difficult to obtain alone much less all together. These three requirements are among those most often noted in my survey of present students. There is an immediacy of reinforcement (McKeachie), and I can see application of Ausubel's advance organizers in that new knowledge does interact with existing learned information.

Evaluation

In this project of self-learning, I found the groundwork of research which will be necessary within our department. It has shown me the application of learning theories in my own trial period and alerts me to the use of these theories in preparing course objectives for a full sequence of machine shorthand courses for court conference reporting.

The variety of students presently enrolled in the course is a virtual gift if one wished to study in the areas of pedagogy and androgogy. There are those for credit and non-credit; those who are matriculated students (ages 18-21); those presently employed in education; those presently employed in business both with and without use/knowledge of the machine shorthand; those who are beginners; and those who began the course prior to this semester and had dropped it. Evaluation then is not only far-reaching and time-consuming but also of necessity. We have our beginnings here. (See Appendix B)

Summary

The learning theories and papers of Ausubel, McKeachie, Novak, Ripple, and Skinner have had the greatest input for this paper. Retention and transfer of learning with areas of reinforcement affected me primarily. Although work in programmed instruction is not included in the paper, its effectiveness holds special importance to the development of course work and the eventual curriculum.

Immediate conclusions as the result of an introduction into this new area of knowledge cause me to rest my case on these statements: some theories work better for younger persons than for older (a true consideration of pedagogy and androgogy); motivation, discipline and perseverance hold a most important role in this specific subject matter; I would not rely on one learning theory in learning or teaching computer-compatible machine shorthand.

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Course description of computer-compatible machine shorthand
First Semester

This course applies computer-compatible machine shorthand theory to the keyboard of a Stenograph Shorthand Machine so that writing speed and efficiency are obtained. Students will master the keyboard, the shorthand theory, and be able to take dictation at a minimum of 60-80 wpm for 3 minutes at 95 percent accuracy.

INITIAL SURVEY OF
CONTINUING EDUCATION CLASS
MAY 1978

Continuing Education-STENOGRAPH$^{\theta}$

This questionnaire has been designed to aid me in some research I am beginning. One of the benefits that I anticipate is in our planning for future courses in Machine Shorthand-- for example, time given, frequency of offerings, level of ability.

Your aid will be especially appreciated in this work. Added comments which you may wish to make may be placed on this page or the backs of the questionnaire sheets.

Patricia Kennedy

A. Have you taken a course in machine shorthand prior to this one? _____yes _____no.

1. If yes, when? _____

2. Was it in a classroom situation? _____

3. About how many were in that class? _____

4. Answer one that best fits your category:

How many class meetings did you attend--a full semester of less or more?
How many semesters or weeks did you take the course?

5. Did you complete the course?

6. What speed did you attain?

7. Do you use machine shorthand in your employment now?

8. If so, why are you taking this course?

9. During the time between your first encounter with Machine Shorthand other than this course, what happened to the skills you had acquired?

10. Try to mention some specific ways in which this course differs from others you have taken. i.e. use of tapes; were you self-taught?

B. Are you presently employed full-time or part-time? _____yes _____no.(which) F or PT

If yes, in business or secretarial/court reporting/ or conference reporting? Free lance?

A full-time student? _____yes _____no.

Are you presently employed but not in the business field? _____yes _____no.

C. Will you comment on the need, you believe, for commitment, discipline, perseverence in taking a course in machine shorthand.

1. How much does your reason for taking the course now, influence your self-discipline, and ultimate success?

D. What other courses, in your opinion, are helpful or even necessary
i.e. Typing
English skills
Other

E. Do you believe a person should have typing skills which are FAIR--GOOD--EXCELLENT--NONE before beginning a machine shorthand course? (circle one)

F. Have you at any time learned another type of shorthand? If so, what?

1. Did it help you or hinder you in this course?

G. What do you presently find most difficult as you complete this semester?

		yes	no
H.	Is the text useful in all ways?		
	If no, please indicate how it might be changed to help you.		
I.	Did you find enough repetition of individual principles after they were initially introduced?		
	Were old principles repeated enough? New ones?		
J.	Do you have any shortcuts of your own? i.e. brief forms: Handling materials; transcribing. Will you give some examples?		
K.	Was the classroom conducive to learning?		
	Was your outside-of-classroom atmosphere conducive to learning?		
	How do surroundings affect learning and practice?		
L.	Do you believe the goals in this one-semester course are realistic?		
	1. Are you taking this course for credit?		
	2. Are you working for a specific grade in the course?		
	3. Do you have goals for yourself other than those required in this course?		
M.	Do you hope/expect to continue the study of machine shorthand?		

N. What is the length of time you find best for classroom

_____approximate minutes before a break

_____approximate total time for a class (maximum)

_____frequency of such a class

_____frequency of practice

_____length of practice

_____minutes per day (of practice)

_____all at one time? _____yes _____no.

APPENDIX B NAME_____

CHECKLIST NUMBER ONE DATE_____

Computer-compatible machine shorthand

STENOGRAPH®

Please complete this sheet. The answers should reflect your thoughts today.

1. What is your immediate reason for taking this course in machine shorthand?

_____pleasure

_____enrichment

_____improvement in present position

_____to obtain a job

_____course required in my degree program for court reporter.

_____other

2. How much time outside class do you expect (think) you will be spending on study and practice?

For example--- number of hours a day or number of hours a week.

_____hours a day

_____hours a week

3. Do you have a long-range goal which is listed here

_____conference reporter

_____court reporter

_____court and conference reporter with associate degree

_____use of machine shorthand in present position

_____(other?)_____

4. Into which category do you place yourself?

_____regularly enrolled student

_____Continuing Education student

_____Special (part-time) student

5. Is this course _____required for you or

_____one you have elected to take

6. Is this the first time you have enrolled in a machine shorthand course ___yes ___no. If NO, when did you previously take a course and what kind?

7. Have you had any instruction in typewriting? _____yes _____no. If yes, what year or years did you take it? _____. How long a time did you take it?(no. of semesters or no. of years)_____. Approximately what speed did you type then (or type now)? _____. Do you use typing skills for _____personal use
_____use in your employment

8. Have you had any instruction in shorthand other than machine shorthand? _____yes _____no. If yes, what year or years did you take it? _____. How long a time did you take it? (no. of semesters or no. of years) _____. Approximately what speed did you have then or have now? _____. Do you use shorthand for _____personal use or _____use in your employment.

9. Have you ever taken a course that might be entitled or considered to be Business English? _____yes _____no. If yes, what year? _____where? _____

10. Give an approximate date (what year?) during which you last had some formal instruction in English grammar _____.

11. Do you have knowledge of any other language besides English? _____yes _____no. If yes, indicate which language (s) and give some idea of your reading, writing, and/or comprehension ability.

12. Please indicate some kinds of work experience that you have had whether or not in a business-related field.

APPENDIX C

Individual Index Card

Stenograph®

NAME _____ ENTRY STATUS*_____

1st Enrolled DATE_____

Day_____or NIGHT_____

Graduated from High School 19____ Commuter_____
Goal_____ Resident_____

Educational Background_____

Typing background_____

Shorthand background_____

Work experience_____

Exit Date_____ Exit Status**_____

*Entry Status
Full time
Part time
Assoc. Degree
Bachelor Degree
NON-matriculant
Certificate
Continuing Educ.

**EXIT STATUS--code used will be one of these numbers and one letter

1. completed degree program
2. completed 4 semesters of machine shorthand
3. completed less than 4 semesters of course
4. incomplete; did not finish first semester of course

Proficiency Category

A. Court Reporter
B. Conference Reporter
C. Stenographer
D. Other (specify)

UNIVERSITY OF CALIF.
LOS ANGELES

AUG 24 1979

CLEARINGHOUSE FOR
JUNIOR COLLEGES

APPENDIX D

NAME _____

CHECKLIST NUMBER TWO

DATE _____

STENOGRAPH®

1. Approximately how much time do you spend outside class on study?

_____hours per day
or
_____hours per week

2. Is this amount of time adequate? _____yes _____no. If no, comment,_____
_____
_____

3. What difficulties have you encountered in your out-of-class study of this skill?
_____
_____

Rate in order of ability for you the following; if one of these 4 does not indicate your feelings at this time leave it blank.

A. Very difficult; B. Difficult; C. Easy; D. Very easy

ANSWER A,B,C,D

1. Knowledge of how the machine operates_____
2. Knowledge of keyboard_____
3. Reading notes_____
4. Writing scripthand_____
5. Use of text_____
6. Inserting paper_____
7. Speed building_____
8. Daily assignments_____
9. Use of tapes_____
10. Phrasing_____
11. Brief forms_____
12. Workbook_____
13. Lab adaptability_____
14. Lab helpful_____
15. Classroom hours_____
16. Classroom atmosphere_____
17. Classroom equipment_____
18. Tests and quizzes_____

4. Do you have an opportunity to compare work and discuss problems with other members of the class outside class? _____yes _____no.

5. Would it be helpful if you could spend more time outside class with others taking this course? _____yes _____no.

6. Have you received extra help from the instructor? _____yes _____no. If no, why not? _____
_____

7. Are you having great difficulty keeping up with the work in these specific areas?

	yes	no
a. assignments	_____	_____
b. speed	_____	_____
c. other, specify	_____	

8. If you have not taken typewriting, skip this question. Otherwise: Has your typing skill aided you in learning Machines Shorthand? _____yes _____no. If yes, when and what? _____

_____

9. Can you read fluently from your paper tape notes? _____yes _____no.

10. Has your use of proper English and punctuation improved since beginning this course? _____yes _____no.

11. Do you go over carefully, the papers returned to you (circle one)

Always, Sometimes, Seldon, Never

12. Do you practice correctly the items which give you difficulty on homework, quizzes, and tests? (circle one)

Always, Sometimes, Seldom, Never

13. Are you satisfied with your progress in the course? _____yes _____no. If no, why not? _____

_____

CHECK EITHER A OR B

14. Are you more concerned with
    (A) your skill and improvement by yourself — A._____
    or
    (B) your skill as you think it compares with others — B._____

15. This class meets Mon. Tues. Wed. Thurs. with a double period on Tuesday.
    (A) Do you believe this schedule is better for your learning and progress than meeting one hour each day Mon. Tues. Wed. Thurs.? — A._____
    (I like Friday off _____yes _____no)
    or
    (B) Do you think perhaps progress would be better if the class did meet Friday and only one hour on Tuesday? — B._____

FOR THE ADULTS

16. Is there a friendly and helpful attitude of other students toward you _____yes _____no.

17. Do you find you are as motivated to want to learn this course as you were on day 1. _____yes _____no.

18. Is the pace of study faster or slower than you expected _____faster _____slower.

19. If you graduated from high school in June 1978, skip this question. Otherwise: Do you now feel comfortable among students, having returned to the classroom after a period of time? _____yes _____no.
    in the classroom itself? _____yes _____no.
    with the instructor _____yes _____no.
    have confidence in your ability to succeed? _____yes _____no.

20. Circle the category that best describes you now.
    Satisfied, Dissatisfied, Need Improvement